

## Solution Stoichiometry

When an excess of calcium metal reacts with 40.0 mL of 3.20 M hydrochloric acid, what mass of calcium chloride will be produced? Assuming no volume changes to the solution, what is the concentration of the resulting salt?

When 100.0 mL of 1.00 M potassium sulfide reacts with an excess of nickel (II) nitrate, what mass of precipitate is produced?

If 5.10 mL of 3.77 mM sodium hydroxide is combined with an equal volume of 5.87 mM sulfuric acid, what is the resulting concentration of the excess reactant? What is the resulting concentration of the salt produced?

When chlorine gas is bubbled into 760. mL of 2.10 M lithium iodide, how many molecules of chlorine are needed to convert all of the lithium iodide to lithium chloride?

If magnesium sulfate crystals are dissolved in 50.0 mL of 0.100 M strontium nitrate a precipitate forms. If the entire amount of strontium nitrate is consumed, how many grams of magnesium sulfate were used?